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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,627	10/27/2004	Bill William Shurvinton	60282.00202	5168

32294 7590 06/07/2006

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EXAMINER	
NGUYEN, TUAN HOANG	
ART UNIT	**PAPER NUMBER**
2618	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/506,627	SHURVINTON ET AL.	
	Examiner	Art Unit	
	Tuan H. Nguyen	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *09/03/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

2. Claims 1-21 had been canceled per Preliminary Amendment filed on 09/03/2004.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 22, 27-29, 31-35 and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feldman, Paul H. (European Publication No. EP 0 461 314 hereinafter, "Feldman") in view of Shin et al. (U.S PAT. 6,282,270 hereinafter, "Shin").

Consider claims 22 and 34, Feldman teaches a power control device for calibrating the power of a transmitter or receiver in a mobile communication network comprising an antenna array (see fig. 2 col. 5 line 56 through col. 6 line24), the transmitter or receiver comprising a power amplifier, and the power control device

comprising a calibration calibrating the transmission or receiving power of the transmitter or receiver, the calibrating including a summing connected to the antenna array for summing transmission or reception signals, and a common calibrating device for calibrating the summed signals, and a power control loop for controlling the output power of the power amplifier, the power control loop containing a detector detecting the output of the power amplifier (see col. 3 line 46 through col. 4 line 32 and col. 5 lines 13-27).

Feldman does not explicitly show that the device adapted to transmit or receive burst signals to the antenna array which burst signals include a fixed training sequence; and a control controlling the detector so as to detect the output of the power amplifier only during the time of output of the training sequence, wherein the device is adapted to control the power based on the detected output power.

In the same field of endeavor, Shin teaches the device adapted to transmit or receive burst signals to the antenna array which burst signals include a fixed training sequence (see page 1 [0014]); and a control controlling the detector so as to detect the output of the power amplifier only during the time of output of the training sequence, wherein the device is adapted to control the power based on the detected output power (see page 1 [0014] and page 2 [0015] through [0017]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, the device adapted to transmit or receive burst signals to the antenna array which burst signals include a fixed training sequence; and a control controlling the detector so as to detect the output of the power amplifier only

during the time of output of the training sequence, wherein the device is adapted to control the power based on the detected output power, as taught by Shin, in order to reduce the interference that the communications induce on one another.

Consider claims 23 and 35, Shin further teaches the control is adapted to issue a control signal which is applied to a control input of the detector, the control being adapted to generate the control signal with a timing so as to operate the detector only when the power amplifier outputs the fixed training sequence (page 1 [0014]).

Consider claims 27 and 39, Shin further teaches the device is adapted to measure, for transmit calibration (Tx calibration), idle timeslots with only one column active (page 2 [0024]).

Consider claims 28 and 40, Shin further teaches for receive calibration, a dummy burst is generated and modulated onto a carrier, the dummy burst is received in each branch of a transmitter, and the amplitude and phase differences between each path are measured and used as a new receive calibration offset (page 1 [0013]).

Consider claim 29, Feldman further teaches a chipset of a mobile terminal which is used for calibration (col. 4 lines 17-32).

Consider claim 31, Feldman further teaches an open loop static power control for controlling the output power of a power amplifier, wherein the open loop static power control comprises a controllable attenuator arranged upstream of the input side of the power amplifier, the controllable attenuator being controlled by a control of the device (col. 3 line 55 through col. 4 line 32).

Consider claims 32 and 41, Feldman further teaches adapted to set the output power on the basis of information measured in a previous timeslot and no power corrections are made during a measured timeslot (col. 5 lines 46-49).

Consider claims 33 and 42, Feldman further teaches for application in a smart antenna structure comprising several antennas, including a power amplifier in each antenna path, a common attenuator, and a splitter arranged between the common attenuator and the antenna paths, each power amplifier including a power control loop (col. 5 line 56 through col. 6 line 37).

5. Claims 24-26, 30, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feldman, Paul H. (European Publication No. EP 0 461 314 hereinafter, "Feldman") in view of Shin et al. (U.S PAT. 6,282,270 hereinafter, "Shin") as applied to claims above, and further in view of Visser (U.S PUB. 2002/0177417).

Consider claims 24 and 36, Feldman and Shin, in combination, fails to discloses a transmission branch and a reception branch, and a first switch for switching the connection of the summing either to the transmission branch or to the reception branch. However, Visser teaches a transmission branch and a reception branch, and a first switch for switching the connection of the summing either to the transmission branch or to the reception branch (page 1 [0004]). Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Visser into view of Feldman and Shin, in order to provide switching of a transmit branch in a transceiver to an antenna feed point that also under high voltage output signals delivered by a transmit power output stage causes no component break through or other problems.

Consider claims 25 and 37, Visser further teaches a second switch switching the connection of the transmission branch either to the summing or first switch, or to a reference coupler for supplying a reference signal to the transmission branch (page 1 [0004]).

Consider claims 26 and 38, Visser further teaches switch provided in the transmission branch for temporarily blanking the transmission branch (page 1 [0006]).

Consider claim 30, Visser further teaches a passive coupling network in the antenna array and a calibration board which works at radio frequencies (see claim 10).

Conclusion

6. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen
Examiner
Art Unit 2618

NAY MAUNG
SUPERVISORY PATENT EXAMINER